

Subt. For, PTO-1449		Docket Number HYZ-030CP-03		Application Number 09/777,526	
<b>INFORMATION DISCLOSURE</b> <b>IN AN APPLICATION</b> (Use several sheets if necessary)				Applicant Agrawal et al.	
				Filing Date February 6, 2001	
Sheet	1	OF		Group Art Unit 1635	

U.S. Patent Documents						
EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
PJ	4,309,404	1/5/1982	DeNeale et al.			
	4,309,406	1/5/1982	Guley et al.			
	4,556,552	12/3/1985	Porter et al.			
	4,704,295	11/3/1987	Porter et al.			
	5,149,797	9/22/1992	Pederson et al.			
	5,220,007	6/15/1993	Pederson et al.			
	5,248,670	9/28/1993	Draper et al.			
	5,271,941	12/21/1993	Cho-Chung			
	5,403,709	4/4/1995	Agrawal et al.			
	5,442,049	8/15/1995	Anderson et al.			
	5,470,967	11/28/1995	Huie et al.			
	5,514,577	5/7/1996	Draper, et al.			
	5,578,716	11/26/1996	Szyf., et al.			
	5,612,212	3/18/1997	Gewirtz			
	5,652,355	7/29/1997	Metelev, et al.			
	5,969,117	10/19/1999	Agrawal			
PJ	6,143,881	11/7/2000	Metelev, et al.			

Foreign Patent Documents							
EXAMINER INITIAL	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
						YES	NO
PJ	92/03568	3/5/1992	WO				
	93/08296	4/29/1993	WO				
	93/13114	7/8/1993	WO				
	93/13740	7/22/1993	WO				
	93/19203	9/30/1993	WO				
	94/02498	2/3/1994	WO				
	94/15619	7/21/1994	WO				
PJ	94/19945	9/15/1994	WO				

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Other Documents (Including Author, Title, Date Pertinent Pages, Etc.)		
<i>pg</i>	A1	Agrawal et al., "Oligodeoxynucleoside phosphoramidates and phosphorothioates as inhibitors of human immunodeficiency virus", <i>Proc. Natl. Acad. Sci. USA</i> , Vol. 85, pp. 7079-7083 (1988)
	A2	Agrawal et al., "Inhibition of human immunodeficiency virus in early infected and chronically infected cells by antisense oligodeoxynucleotides and their phosphorothioate analogues", <i>Proc Natl Acad Sci U S A.</i> , Vol. 86, pp. 7790-4 (1989)
	A3	Agrawal et al., "Site-specific excision from RNA by RNase H and mixed-phosphate-backbone oligodeoxynucleotides", <i>Proc Natl Acad Sci U S A.</i> , Vol. 87, pp. 1401-5 (1990)
	A4	Agrawal et al., "Pharmacokinetics, biodistribution, and stability of oligodeoxynucleotide phosphorothioates in mice", <i>Proc Natl Acad Sci U S A.</i> , Vol. 88, pp. 7595-9 (1991)
	A5	Agrawal, "Antisense oligonucleotides as antiviral agents", <i>Trends in Biotechnol.</i> , Vol. 10, pp. 152-158 (1992)
	A6	Agrawal, "Functionalization of oligonucleotides with amino groups and attachment of amino specific reporter groups", <i>Methods in Molecular Biology: Protocols for Oligonucleotide Conjugates</i> (Agrawal, Ed.), Humana Press., pp. 93-120 (1994)
	A7	Agrawal, et al., "Pharmacokinetics and Bioavailability of Antisense Oligonucleotides Following Oral and Colorectal Administrations in Experimental Animals", <i>Handbook of Experimental Pharmacology, Volume 131: Antisense Research and Application</i> (Crooke, Ed.), Springer-Verlag, pp. 525 - 543 (1998)
	A8	Bayever et al., "Systemic administration of a phosphorothioate oligonucleotide with a sequence complementary to p53 for acute myelogenous leukemia and myelodysplastic syndrome: initial results of a phase I trial", <i>Antisense Res Dev.</i> Vol. 3, pp. 383-90 (1993)
	B1	Boutorine et al, "Effect of derivatization of ribophosphate backbone and terminal ribophosphate groups in oligoribonucleotides on their stability and interaction with eukaryotic cells", <i>Biochimie</i> Vol. 76, pp. 23-32 (1994)
	B2	Ceruzzi et al., "The Intracellular and Extracellular Fate of Oligodeoxyribonucleotides in Tissue Culture Systems", <i>Nucleosides and Nucleotides</i> 8 (5&6), 815-8 (1989)
	B3	Craig et al., "Patent Strategies in the Antisense Oligonucleotide Based Therapeutic Approach", <i>Exp. Opin. Ther. Patents</i> , Vol. 7, No. 10, pp.1175-1182 (1997)
	B4	Crooke, S. T., "Progress in the Development of Antisense Drugs", <i>Exp. Opin. Invest. Drugs</i> , Vol. 5, No. 8, pp. 1047-1052 (1996)
	B5	Egli et al., "Structural Origins of the High RNA Affinity of 2'-O-Methoxyethyl RNA: Crystal Structure of an All-Modified 2'-O-MOE RNA Dodecamer Duplex, <i>Antisense</i> 98: Targeting the Molecular Basis of Disease, October 8-9, 1998
<i>Ref</i>	B6	Furdon et al., "RNase H cleavage of RNA hybridized to oligonucleotides containing methylphosphonate, phosphorothioate and phosphodiester bonds", <i>Nucleic Acids Res.</i> , Vol. 17, No. 22, pp. 9193-204 (1989)

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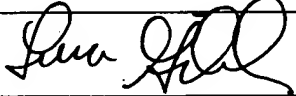
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<b>INFORMATION DISCLOSURE IN AN APPLICATION</b> (Use several sheets if necessary)				Applicant Agrawal et al.	
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B7	Galderisi et al., "Antisense oligonucleotides as therapeutic agents", <i>J. Cell. Physiol.</i> , Vol. 181, pp. 251-57 (1999)
C1	Hughes et al., "Radiolabeling of methylphosphonate and phosphorothioate oligonucleotides and evaluation of their transport in everted rat jejunum sacs", <i>Pharm Res.</i> , Vol. 12, No. 6, pp. 817-24 (1995)
C2	Inoue et al., "Sequence-dependent hydrolysis of RNA using modified oligonucleotide splints and RNase H", <i>FEBS Lett.</i> , Vol. 215, No. 2, pp. 327-30 (1987)
C3	International Business Communications, IBC, 's Fourth Annual International Symposium on Oligonucleotide- and Gene Therapy-Based Antisense Therapeutics with New Applications for Genomics, February 6-7 1997
C4	International Business Communications, IBC, 's Sixth International Conference on Oligo-Therapeutics, Molecular Tools and Novel Therapeutic Strategies, May 1999
C5	Isis Pharmaceuticals, Inc., <i>Antisense 97: Targeting the Molecular Basis of Disease</i> , Nature Biotechnology Conference, May 1-2 1997
C6	Isis Pharmaceuticals, "Orasense Joint Venture Announces Pivotal First Step in Development of Oral Formulation of Antisense Drugs", Press Release, June 5, 2000
C7	Iversen, "In vivo studies with phosphorothioate oligonucleotides: pharmacokinetics prologue", <i>Anti-Cancer Drug Des.</i> , Vol. 6, pp. 531-8 (1991)
C8	Iversen, et al., "Pharmacokinetics of an antisense phosphorothioate oligodeoxynucleotide against rev from human immunodeficiency virus type 1 in the adult male rat following single injections and continuous infusion", <i>Antisense Res Dev.</i> , Vol. 4, pp. 43-52 (1994)
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C10	Levin, "The Pharmacokinetics and Toxicity of Oligonucleotides: New Routes of Administration", <i>Antisense 98: Targeting the Molecular Basis of Disease</i> , Organized by Nature Biology, London, UK, October 8-9, 1998
D1	Martin, P. "Ein neuer Zugang zu 2'-O-Alkylribonucleosiden und Eigenschaften deren Oligonucleotide", <i>Helvetica Chimica Acta</i> , Vol. 78, pp. 486-504 (1995)
D2	Metelev et al, "Study of Antisense Oligonucleotide Phosphorothioates Containing Segments of Oligodeoxynucleotides and 2'-O-Methyloligoribonucleotides", <i>Bioorganic &amp; Medicinal Chemistry Letters</i> , Vol.4, No. 24, pp. 2929-2934 (1994)
D3	Milligan et al., "Current concepts in antisense drug design", <i>J Med Chem.</i> , Vol. 36, No. 14, pp. 1923-37 (1993)
D4	Orr, (Reported By), <i>Antisense 98: Targeting the Molecular Basis of Disease (Part III)</i> , Organized by Nature Biology, London, UK, October 8-9, 1998
D5	Quartin et al., "Number and distribution of methylphosphonate linkages in oligodeoxynucleotides affect exo- and endonuclease sensitivity and ability to form RNase H substrates", <i>Nucleic Acids Res.</i> , Vol. 17, No. 18, pp. 7253-62 (1989)

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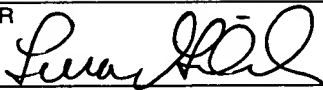
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ER	D6	Rapaport et al., "Antimalarial activities of oligodeoxynucleotide phosphorothioates in chloroquine-resistant <i>Plasmodium falciparum</i> ", <i>Proc Natl Acad Sci U S A.</i> , Vol. 89, pp. 8577-80 (1992)
	D7	Sands, et al., "Biodistribution and metabolism of internally <sup>3</sup> H-labeled oligonucleotides. I. Comparison of a phosphodiester and a phosphorothioate", <i>Mol. Pharmacol.</i> , Vol. 45, pp. 932-43 (1994)
	D8	Shibahara et al., "Site-directed cleavage of RNA", <i>Nucleic Acids Res.</i> , Vol. 15, No. 11, pp. 4403-15 (1987)
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	E2	Sonveaux, "Protecting Groups in Oligonucleotide Synthesis" <u>Methods in Molecular Biology: Protocols for Oligonucleotide Conjugates</u> (Agrawal ed.), Humana Press, pp. 1-71 (1994)
	E3	Stein et al., "Antisense oligonucleotides as therapeutic agents — is the bullet really magical?" <i>Science</i> , Vol. 261, pp. 1004-12 (August 1993)
	E4	Takashima et al., "tau protein kinase I is essential for amyloid $\beta$ -protein-induced neurotoxicity," <i>Proc Natl Acad Sci U S A.</i> , Vol. 90, pp. 7789-93 (1993)
	E5	Tidd et al., "Partial protection of oncogene, anti-sense oligodeoxynucleotides against serum nuclease degradation using terminal methylphosphonate groups," <i>Br J Cancer.</i> , Vol. 60, pp. 343-50 (1989)
/	E6	Tortora et al., "Oral antisense that targets protein kinase A cooperates with taxol and inhibits tumor growth, angiogenesis, and growth factor production," <i>Clin. Cancer Res.</i> Vol. 6, pp. 2506-12 (June 2000)
	E7	Tseng et al., "Antisense oligonucleotide technology in the development of cancer therapeutics," <i>Cancer Gene Ther</i> , Vol. 1, No. 1, pp. 65-71 (1994)
	F1	Uhlmann et al., "Antisense Oligonucleotides: A New Therapeutic Principle", <i>Chem. Rev.</i> Vol. 90, No. 4, pp. 543-584 (1990)
	F2	Wang et al., "Antitumor activity and pharmacokinetics of a mixed-backbone antisense oligonucleotide targeted to the R1 $\alpha$ subunit of protein kinase A after oral administration," <i>Proc Natl Acad Sci U S A.</i> , Vol. 96, No. 24, pp. 13989-94 (1999)
	F3	Wickstrom, E., "Oligodeoxynucleotide stability in subcellular extracts and culture media," <i>J Biochem Biophys. Methods</i> , Vol. 13, pp. 97-102 (1986)
	F4	Wickstrom, E., "Strategies for administering targeted therapeutic oligodeoxynucleotides," <i>Trends Biotechnol.</i> , Vol. 10, pp. 281-7 (1992)
	F5	Zamecnik, P., "History of Antisense Oligonucleotides", <u>Methods in Molecular Medicine: Antisense Therapeutics</u> (Agrawal, Ed.), Human Press, pp. 1-11 (1996)
ER	F6	Zendegui, et al., "In vivo stability and kinetics of absorption and disposition of 3' phosphopropyl amine oligonucleotides", <i>Nucleic Acids Res.</i> , Vol. 20, No. 2, pp. 307-14 (1992)

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Pg	F7	Zhao, et al., "Comparison of Cellular Binding and Uptake of Antisense Phosphodiester, Phosphorothioate, and Mixed Phosphorothioate and Methylphosphonate Oligonucleotides", <i>Antisense Res. and Dev.</i> Vol. 3, pp. 53-66 (1993)
Pg	F8	Zon, "Oligonucleotide Analogues and Potential Chemotherapeutic Agents", <i>Pharm. Res</i> Vol. 5, No. 9, pp. 539-49 (1988)

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